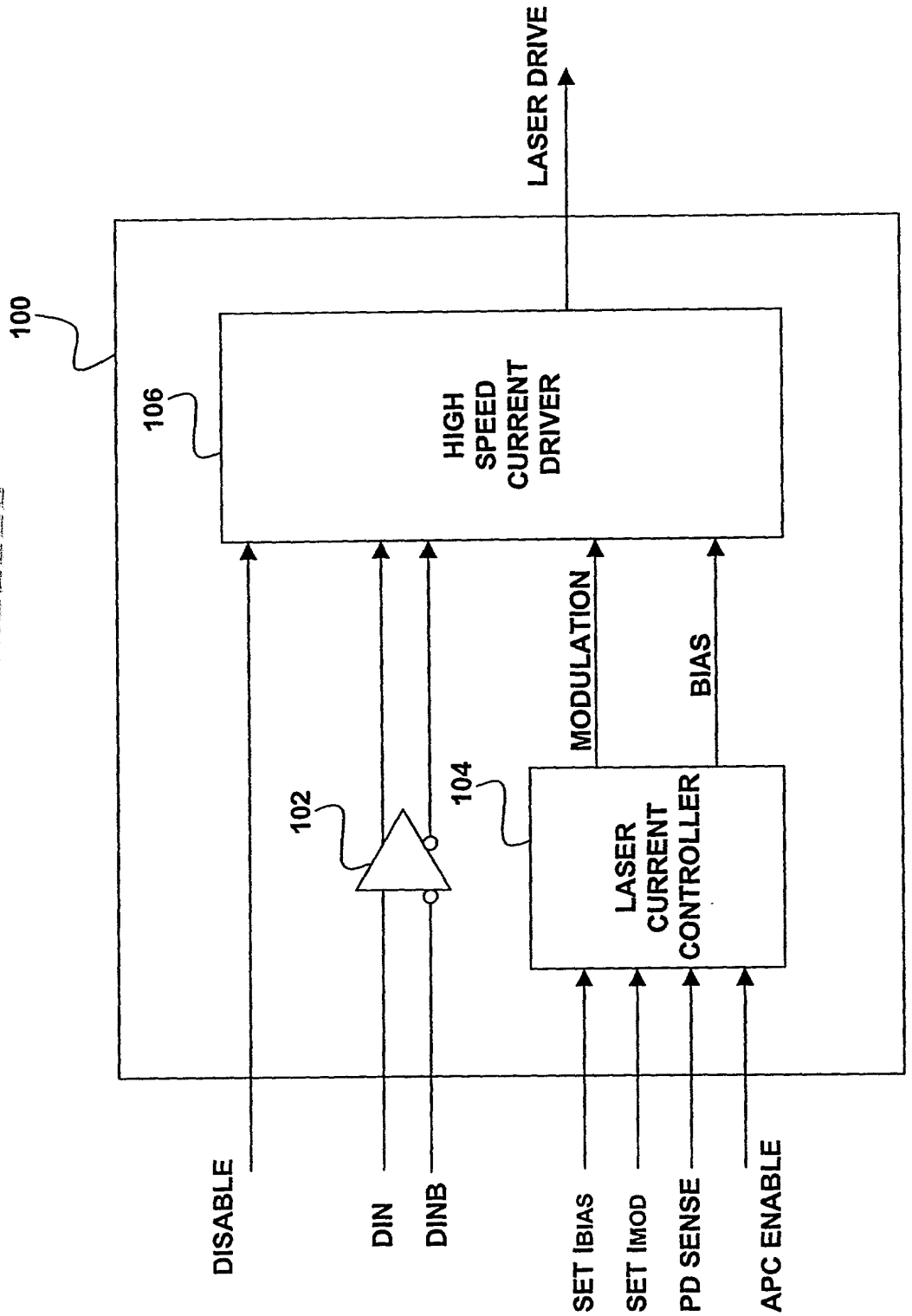

LASER DRIVE
100
106
HIGH SPEED CURRENT DRIVER
MODULATION
BIAS
102
104
LASER CURRENT CONTROLLER
DISABLE
DIN
DINB
SET IBIAS
SET IMOD
PD SENSE
APC ENABLE

FIG. 1

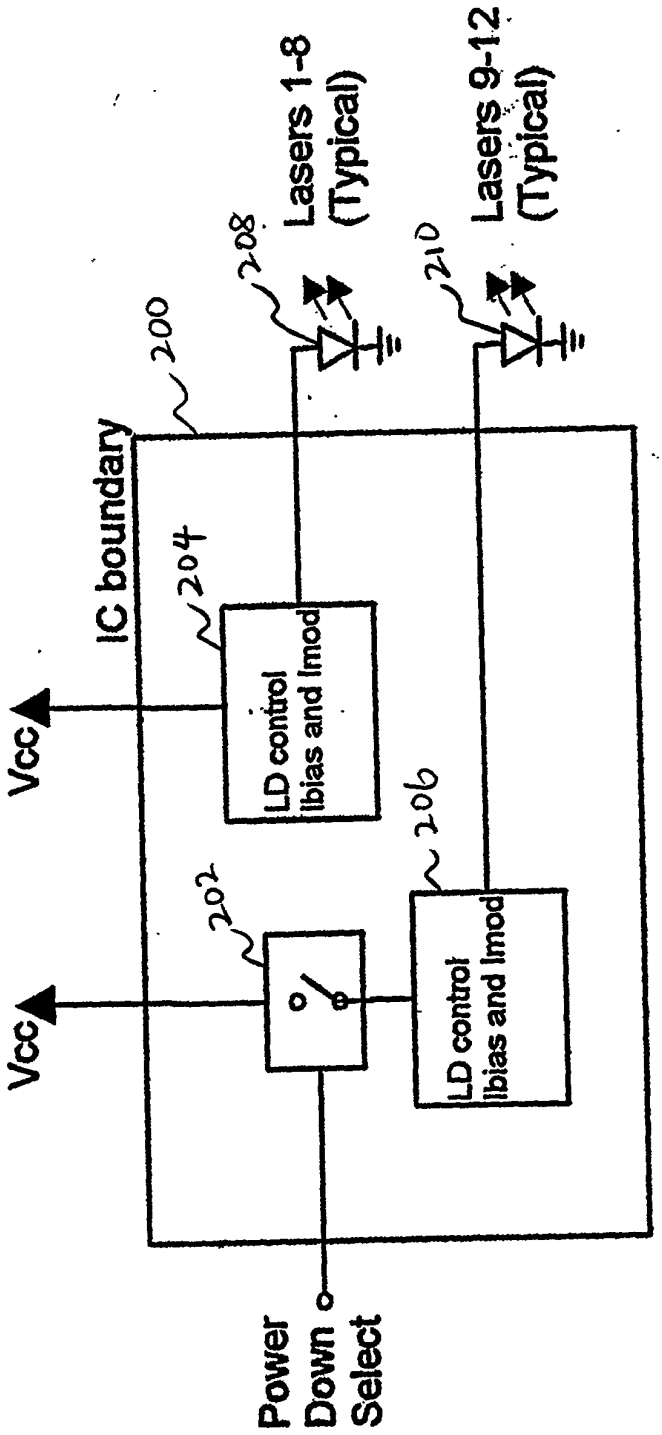

Lasers 1-8 (Typical)
Lasers 9-12 (Typical)
208
210
200
IC boundary
204
LD control Ibias and Imod
Vcc
206
202
Vcc
LD control Ibias and Imod
Power Down Select

FIG. 2

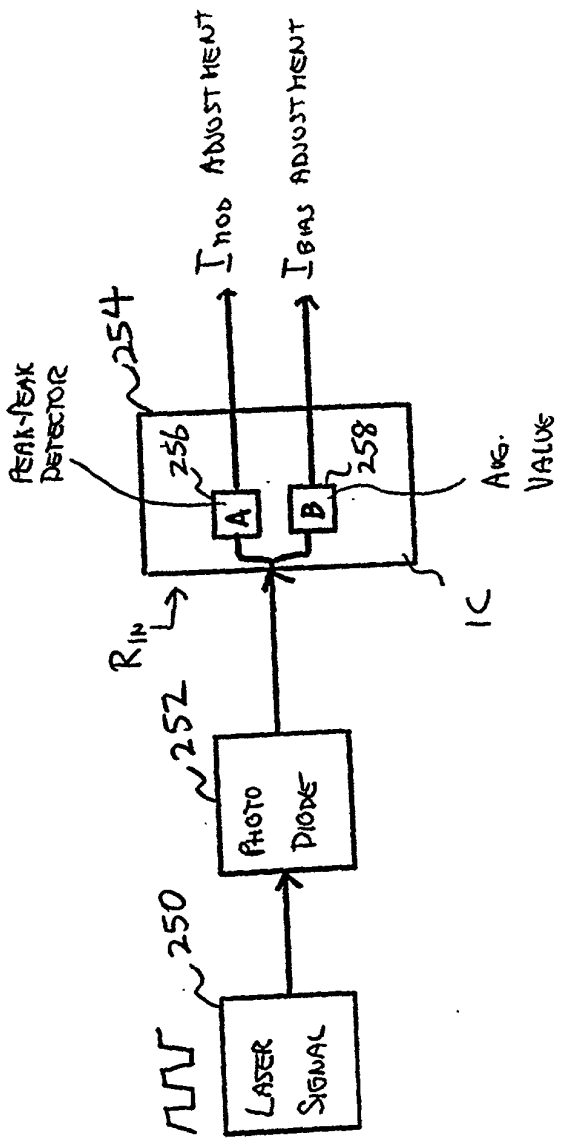

LASER SIGNAL
250
PHOTO DIODE
252
R_{IN}
IC
254
PEAK-PEAK DETECTOR
256
258
A
B
AVG. VALUE
I_{MOD} ADJUSTMENT
I_{BIAS} ADJUSTMENT

FIG. 3

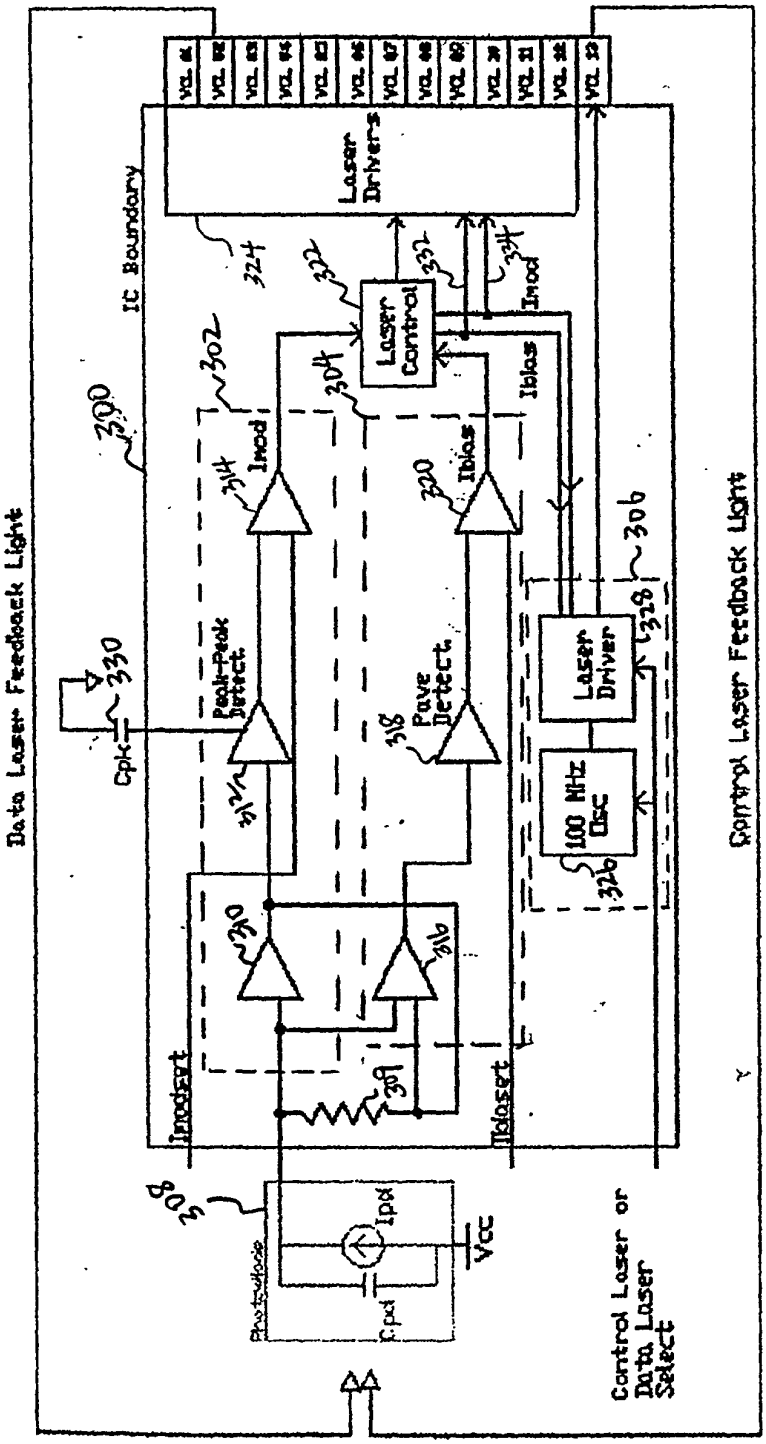
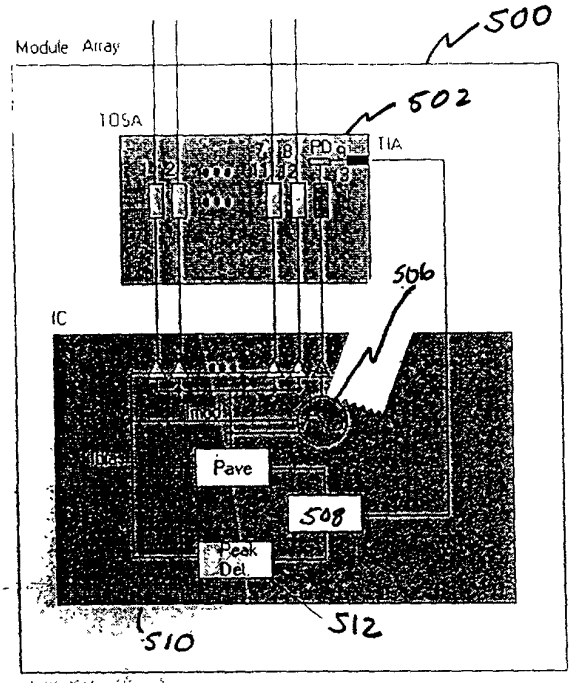
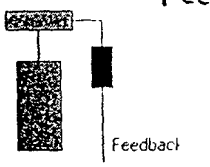

Laser Drivers
IC Boundary
Laser Control
Imod
Ibias
Peak-Peak Detect.
Pave Detect.
Laser Driver
100 MHz Osc
Imodset
Ibiasset
Photodiode
Ipd
Vcc
Cpd
Cpk
Data Laser Feedback Light
Control Laser Feedback Light
Control Laser or Data Laser Select

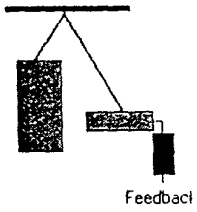
FIG. 4

Option 1: Extra Laser, Use of control laser for feedback.

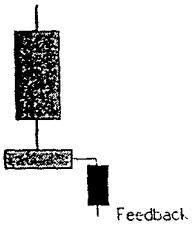




Direct



Reflection



Rear Exit

<date>

FIGURE 5

Option 2 a & b : Use of Data Laser for Feedback

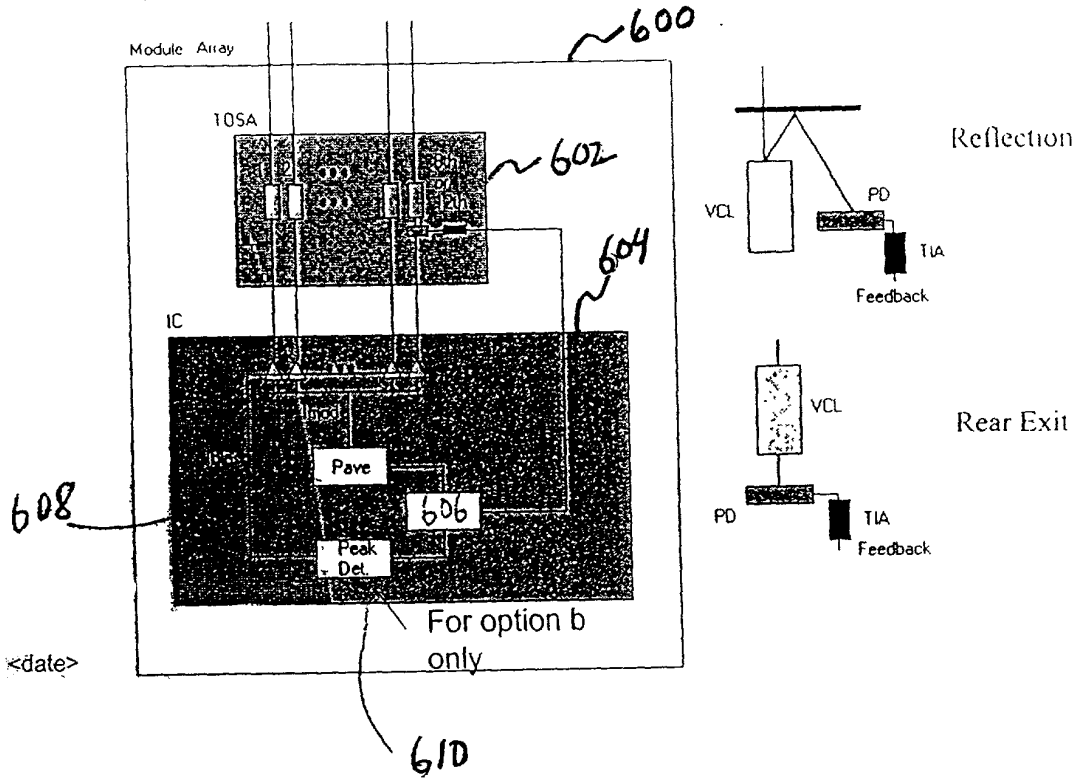


Figure 6

EDITED: 12/06/2000

FIG. 7A

GENERAL CASE

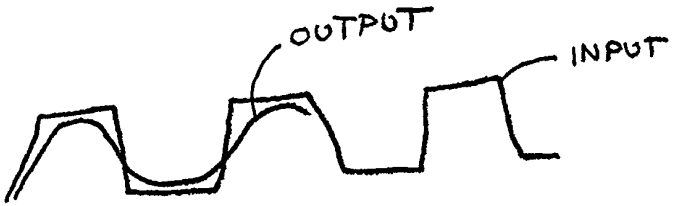


FIG. 7B

HIGH BW, LOW CAPACITANCE PHOTODIODE

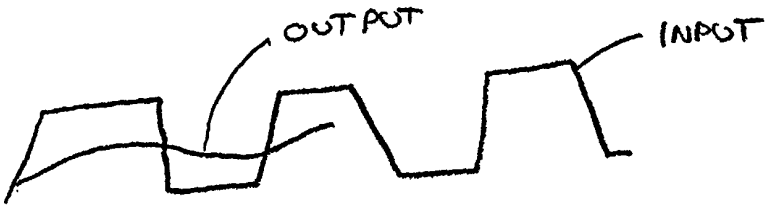


FIG. 7C

LOW BW, HIGH CAPACITANCE PHOTODIODE

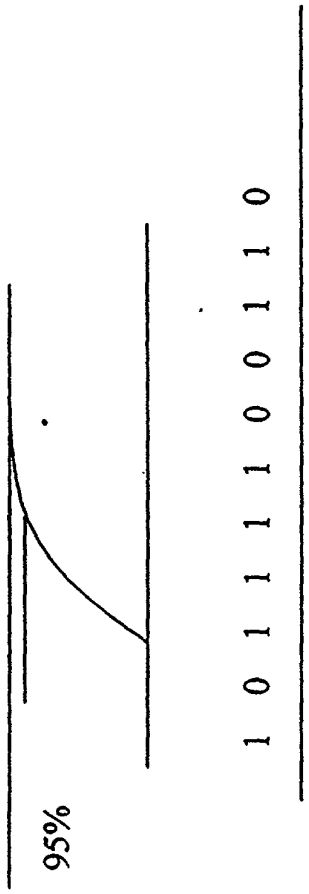
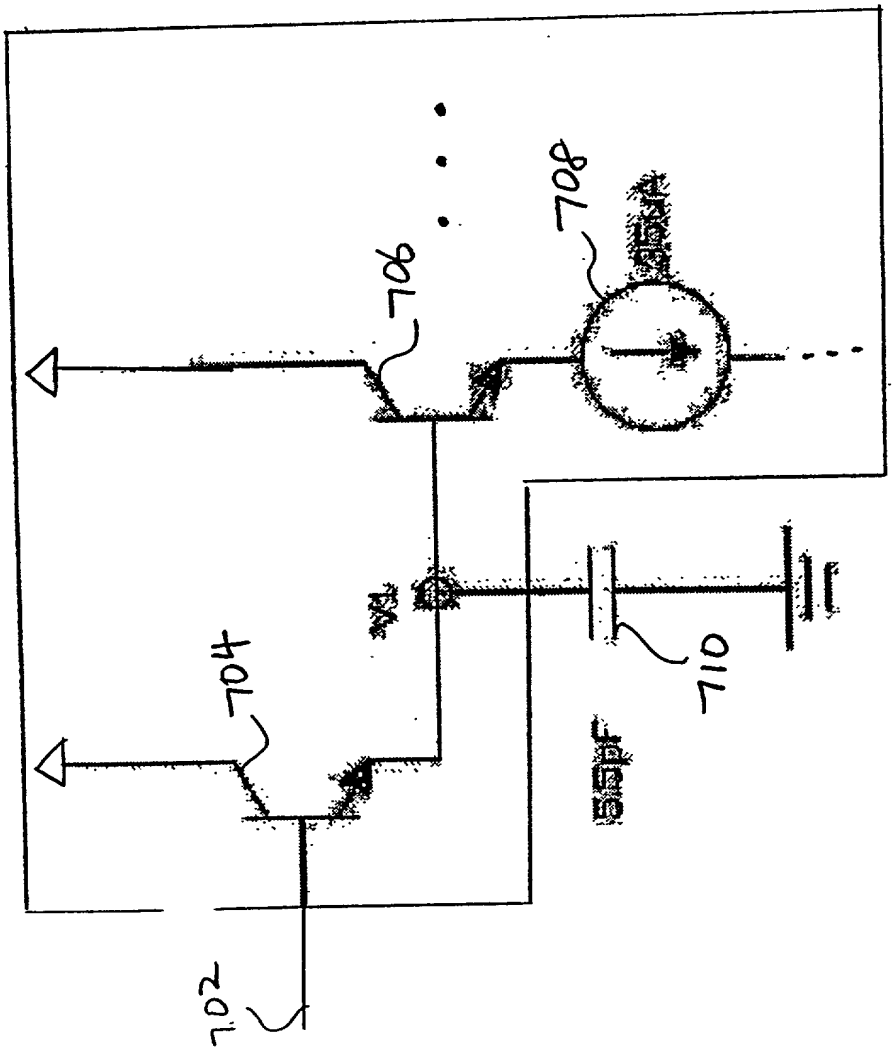


FIG. 8

FIG. 9



PATENTED

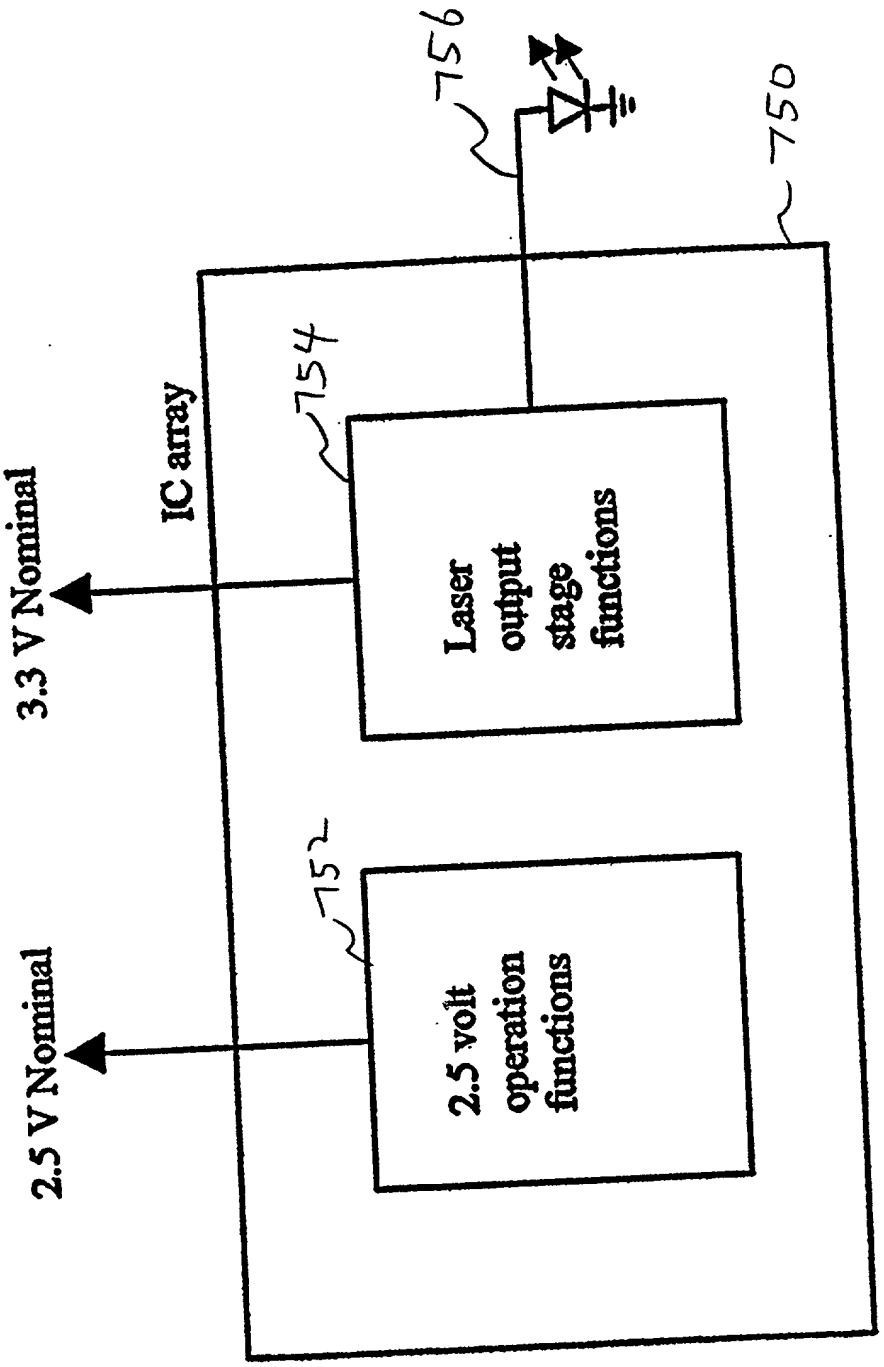


FIG. 10

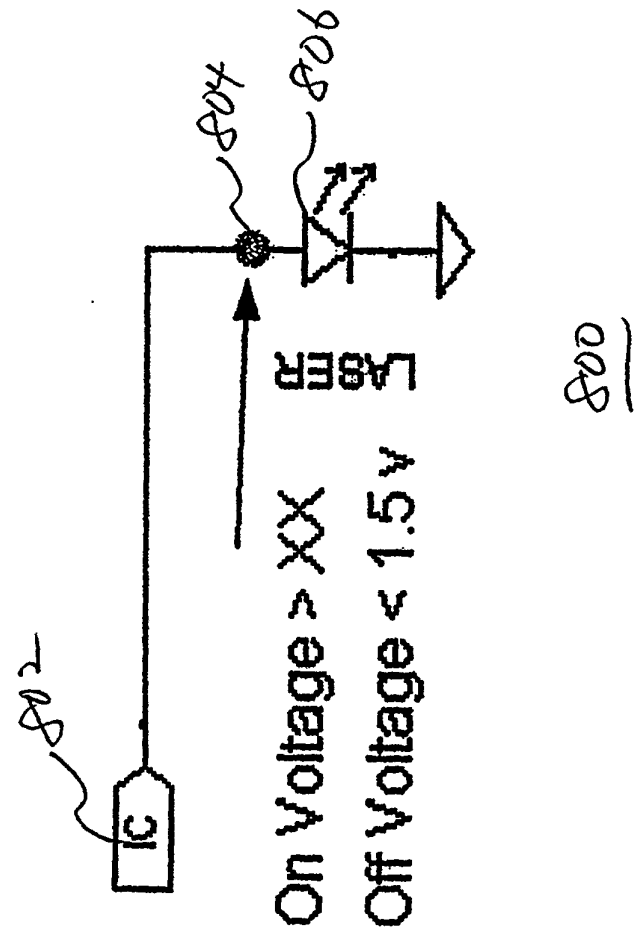


FIG. 11

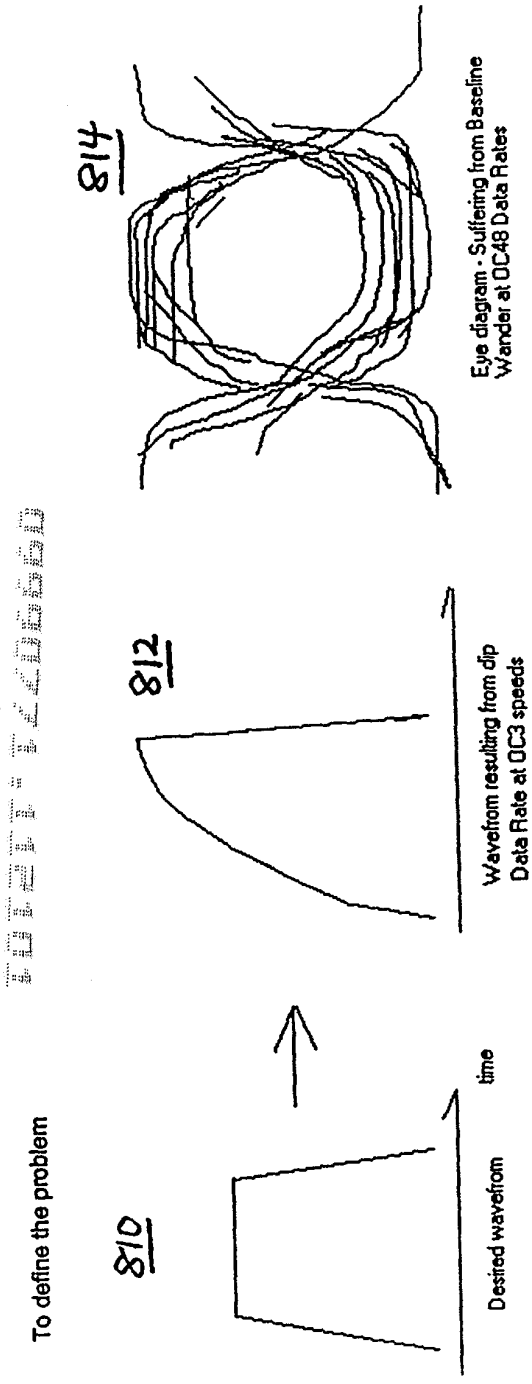


FIG. 12A

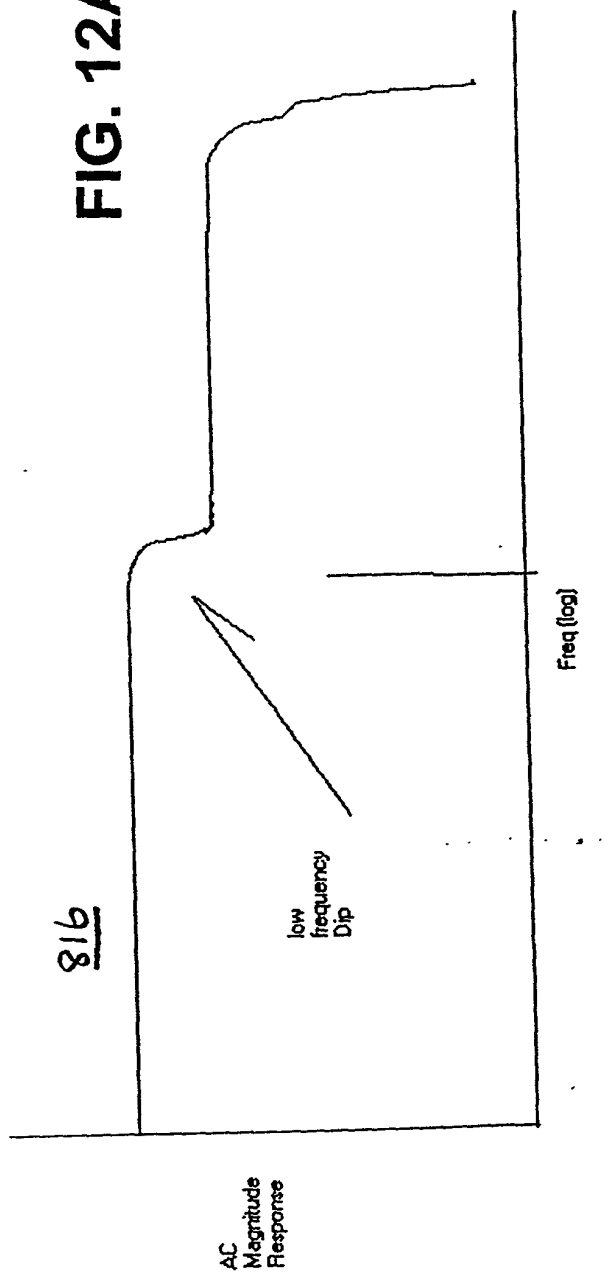
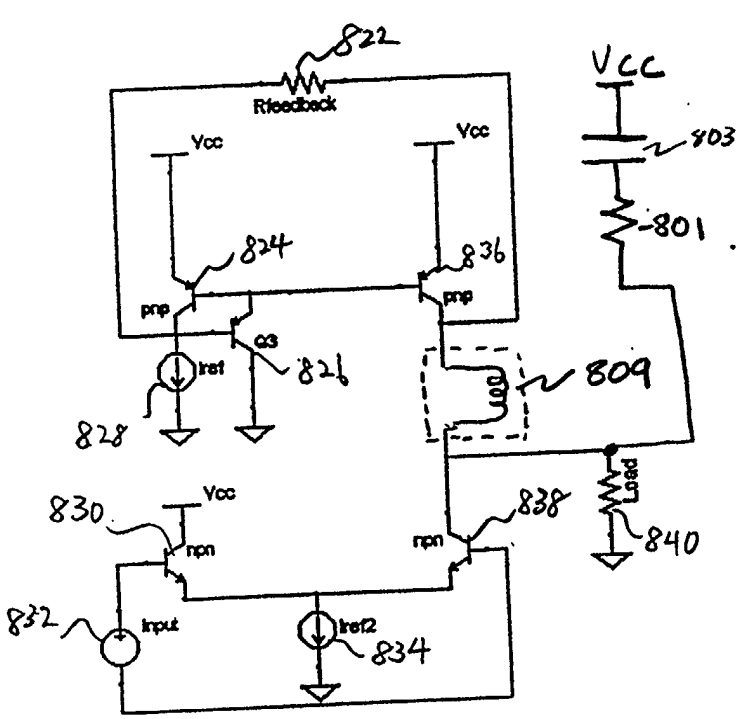
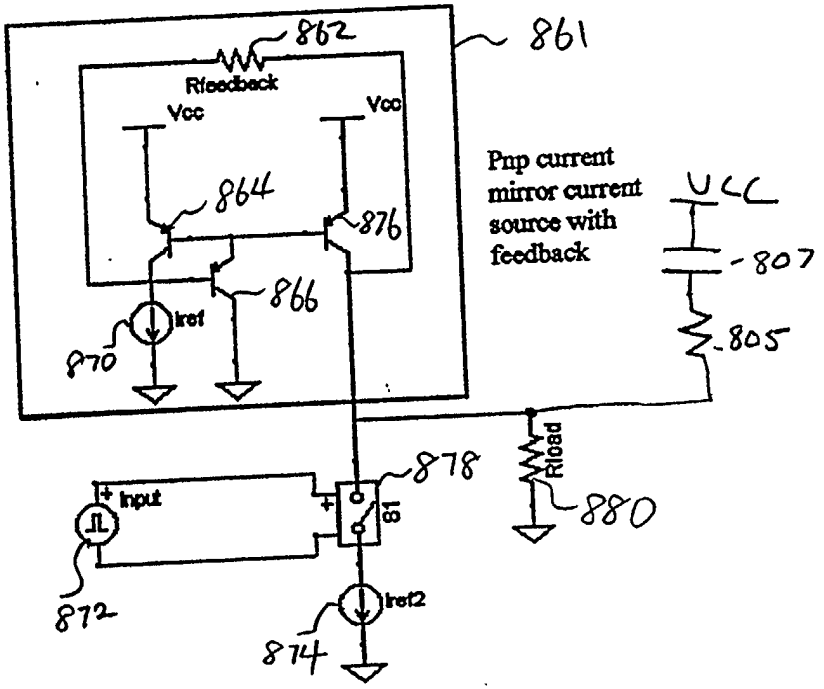


FIG. 12B

Attorney: Art Hasan
Docket No.: 47084/SAH/C715
Inventor(s): Nelson Diaz, et al.
Title: HIGH SPEED LASER ARRAY DRIVER
Sheet 13 of 13



820



860

FIG. 13A

FIG. 13B